

# TEKNOPLAST 50

## Epoxy top coat

TEKNOPLAST 50 is a semigloss, two-pack epoxy top coat.



Use: As a top coat in abrasion and chemical resistant Epoxy Coating Systems and also in maintenance coating systems. The paint has good adhesion to bare zinc, aluminium, thin-plate and acid-proof steel.

TEKNOPLAST 50 is quickly overcoatable and is therefore suited to a fast painting tempo. It is also suitable for application by twin-feed spray. The paint film withstands heavy abrasion, aqueous solutions of chemicals, oils, greases and solvents. TEKNOPLAST 50 withstands temporary dry heat up to +120°C. Frequent attacks by heat may cause the colour to change. TEKNOPLAST WINTER HARDENER 7212 (data sheet no. 1317) is to be used when painting at temperatures below +10°C.

### TECHNICAL DATA

<b>Recommended substrate</b>	Steel, Aluminium, Zinc, Concrete														
<b>Binder</b>	Epoxy														
<b>Solids</b>	53 ±2% by volume														
<b>Total mass of solids</b>	Approx. 800 g/l														
<b>Volatile organic compound (VOC)</b>	(For mixed product, base and hardener ratio 4:1) Approx. 430 g/l (Theoretical, according to IED 2010/75/EU) 381 g/l (Tested according to China GB/T 23985-2009)														
<b>Theoretical spreading rate</b>	<table border="1"><thead><tr><th>Dry film (µm)</th><th>Wet film (µm)</th><th>Theoretical spreading rate (m<sup>2</sup>/l)</th></tr></thead><tbody><tr><td>60</td><td>113</td><td>8.8</td></tr><tr><td>80</td><td>150</td><td>6.6</td></tr><tr><td>100</td><td>190</td><td>5.3</td></tr></tbody></table>	Dry film (µm)	Wet film (µm)	Theoretical spreading rate (m <sup>2</sup> /l)	60	113	8.8	80	150	6.6	100	190	5.3		
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<b>Practical spreading rate</b>	The values depend on the application technique, surface conditions, overspray, etc.														
<b>Colours</b>	Same tinting system should be used during the whole painting project. Factory colours by agreement.														
<b>Tinting system</b>	Teknomix; Teknotint														
<b>Gloss (60°)</b>	Semigloss														
<b>Hardener</b>	Comp. B: TEKNOPLAST HARDENER														
<b>Mixing ratio (A:B)</b>	4:1 parts by volume														
<b>Pot life, +23°C</b>	4 h														
<b>Thinner</b>	Standard thinner: TEKNOSOLV 9506.														

**Storage**

The storage stability is shown on the label. Store in a cool place and in tightly closed containers.

**DIRECTION FOR USE****Surface preparation**

Remove from the surfaces any contaminants that might be detrimental to surface preparation and application. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

**STEEL SURFACES:** Remove mill scale and rust by blast cleaning to preparation grade Sa 2½ (standard ISO 8501-1). Roughening the surface of thin-plate improves the adhesion of the paint to the substrate.

**ZINC SURFACES:** Hot-dip-galvanized steel structures that are exposed to atmospheric corrosion can be painted if the surfaces are sweep blast-cleaned (SaS) till matt all over. Suitable cleaning agents are, e.g. aluminium oxide and natural sand. It is not recommended according to standard ISO 12944-5 to paint hot-dip-galvanized objects that are subjected to immersion strain. Painting of hot-dip-galvanized objects that are subjected to immersion strain must be discussed separately with Teknos. It is recommended that new zinc-coated thin-plate structures are treated with sweep blast-cleaning (SaS). Thin-plate surfaces that have been weathered to matt can be treated also with RENZA STEEL washing agent for galvanized surfaces.

**ALUMINIUM SURFACES:** Treat the surfaces with RENZA STEEL washing agent for galvanized surfaces. Surfaces that are exposed to weathering are also roughened up with sweep blast-cleaning (AlSaS) or sanding.

**OLD PAINTED SURFACES SUITABLE FOR OVERCOATING:** Any impurities that might be detrimental to the application of paint (e.g. grease and salts) are removed. The surfaces must be dry and clean. Old, painted surfaces that have exceeded the maximum overcoating time are to be roughened as well. Damaged parts are prepared in accordance with the requirements of the substrate and the maintenance coating.

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

**Application method**

Airless spraying

**Application**

Take into consideration the pot life of the mixture when estimating the amount to be mixed at a time. Before application the base and hardener are mixed in right proportion. Stir thoroughly down to the bottom of the vessel. Inadequate stirring or incorrect mixing ratio results in imperfect curing and impaired film properties.

Stir thoroughly before use.

Apply preferably by airless spray as only this method provides the recommended film thickness in a single operation. Suitable airless nozzle size 0.013 - 0.019". Brush can be used for touching up and painting small areas.

When twin-feed spray is used for application, the mixing ratio of the dosage pump must be 4:1. The feed pump pressure and the consumption of components is to be checked during application to ensure of the correct mixing ratio. The components cannot be thinned if twin-feed spray with fixed ratio is used.

**Application conditions**

The surface to be treated has to be dry. During the application and drying period the temperature of the ambient air, the surface and the product shall be above +10°C and the relative air humidity below 80%.

Additionally, the temperature of the surface to be treated and the product must be at least +3°C above the dew point of the ambient air.

When using TEKNOPLAST WINTER HARDENER 7212 the temperature of the ambient air and the surface to be painted shall be over -5°C. The temperature of the paint during the mixing and application is to be above +15°C.

**Thinning**

If needed, thin the paint with TEKNOSOLV 9506.

**Drying time**

+23 °C / 50% RH (dry film 60 µm)

**-dust free**

1 h (ISO 9117-3:2010)

**-touch dry**

4 h (ISO 9117-5:2012)

**Overcoatable**

surface temperature	by itself	
	min.	max.*
+10°C	6 h	1 month
+23°C	2 h	1 month

\* Maximum overcoating interval without roughening.

Increase in film thickness and rise in the relative humidity of the air in the drying space usually slow down the drying process.

**Cleaning**

TEKNOSOLV 9506 or TEKNOSOLV 9530.

**HEALTH AND SAFETY****Safety and precaution measures**

See safety data sheet.

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